

SEQUENCE LISTING

<110> Wittamer, Valerie

Communi, David

Vandenbogaerde, Ann

Detheux, Michel

Parmentier, Marc

<120> Compositions and Methods Comprising a Ligand of ChemerinR

<130> 9409/2212

<150> US 60/303,858

<151> 2001-07-09

<150> US 09/905,253

<151> 2001-07-13

<150> US 10/201,187

<151> 2001-07-23

<160> 91

<170> PatentIn version 3.2

<210> 1

<211> 1112

<212> DNA

gtgaccatca tcattacctt cttcctctgc tggcgccct accacacact caacctccta 840  
gagctccacc aactgccat gcctggctct gtcttcagcc tgggtttgcc cctggccact 900  
gcccttgcca ttgccaacag ctgcatgaac ccattctgt atgttttcat ggtcaggact 960  
tcaagaagtt caaggtggcc ctcttctctc gcctgggtcaa tgctctaagt gaagatacag 1020  
gccactcttc ctacccagc catagaagct ttaccaagat gtcaatgaat gagaggactt 1080  
ctatgaatga gagggagacc ggcattgcttt ga 1112

<210> 2  
<211> 371  
<212> PRT  
<213> Homo sapiens

<400> 2

Met Glu Asp Glu Asp Tyr Asn Thr Ser Ile Ser Tyr Gly Asp Glu Tyr  
1 5 10 15

Pro Asp Tyr Leu Asp Ser Ile Val Val Leu Glu Asp Leu Ser Pro Leu  
20 25 30

Glu Ala Arg Val Thr Arg Ile Phe Leu Val Val Val Tyr Ser Ile Val  
35 40 45

Cys Phe Leu Gly Ile Leu Gly Asn Gly Leu Val Ile Ile Ile Ala Thr  
50 55 60

Phe Lys Met Lys Lys Thr Val Asn Met Val Trp Phe Leu Asn Leu Ala  
65 70 75 80

Val Ala Asp Phe Leu Phe Asn Val Phe Leu Pro Ile His Ile Thr Tyr  
85 90 95

Ala Ala Met Asp Tyr His Trp Val Phe Gly Thr Ala Met Cys Lys Ile  
100 105 110

Ser Asn Phe Leu Leu Ile His Asn Met Phe Thr Ser Val Phe Leu Leu  
115 120 125

Thr Ile Ile Ser Ser Asp Arg Cys Ile Ser Val Leu Leu Pro Val Trp  
130 135 140

Ser Gln Asn His Arg Ser Val Arg Leu Ala Tyr Met Ala Cys Met Val

145		150		155		160
Ile Trp Val Leu Ala Phe Phe Leu Ser Ser Pro Ser Leu Val Phe Arg	165		170		175	
Asp Thr Ala Asn Leu His Gly Lys Ile Ser Cys Phe Asn Asn Phe Ser	180		185		190	
Leu Ser Thr Pro Gly Ser Ser Ser Trp Pro Thr His Ser Gln Met Asp	195		200		205	
Pro Val Gly Tyr Ser Arg His Met Val Val Thr Val Thr Arg Phe Leu	210		215		220	
Cys Gly Phe Leu Val Pro Val Leu Ile Ile Thr Ala Cys Tyr Leu Thr	225		230		235	240
Ile Val Cys Lys Leu Gln Arg Asn Arg Leu Ala Lys Thr Lys Lys Pro	245		250		255	
Phe Lys Ile Ile Val Thr Ile Ile Ile Thr Phe Phe Leu Cys Trp Cys	260		265		270	
Pro Tyr His Thr Leu Asn Leu Leu Glu Leu His His Thr Ala Met Pro	275		280		285	
Gly Ser Val Phe Ser Leu Gly Leu Pro Leu Ala Thr Ala Leu Ala Ile	290		295		300	
Ala Asn Ser Cys Met Asn Pro Ile Leu Tyr Val Phe Met Gly Gln Asp	305		310		315	320
Phe Lys Lys Phe Lys Val Ala Leu Phe Ser Arg Leu Val Asn Ala Leu	325		330		335	
Ser Glu Asp Thr Gly His Ser Ser Tyr Pro Ser His Arg Ser Phe Thr	340		345		350	
Lys Met Ser Ser Met Asn Glu Arg Thr Ser Met Asn Glu Arg Glu Thr	355		360		365	
Gly Met Leu	370					

<210> 3  
 <211> 1116  
 <212> DNA  
 <213> Mus musculus

<400> 3  
 atggagtagc acgcttataa cgactccggc atctatgatg atgagtactc tgatggcttt 60  
 ggctactttg tggacttgga ggaggcgagt ccgtgggagg ccaaggtggc cccggctctc 120  
 ctggtggtga tctacagctt ggtgtgcttc ctcggtctcc taggcaacgg cctggtgatt 180  
 gtcacgcaca ccttcaagat gaagaagacc gtgaacactg tgtgggtttgt caacctggct 240  
 gtggccgact tcctgttcaa catctttttg ccgatgcaca tcacctacgc ggccatggac 300  
 taccactggg tgttcgggaa ggccatgtgc aagatcagca acttcttgct cagccacaac 360  
 atgtacacca gcgtcttctt gctgactgtc atcagctttg accgctgcat ctccgtgctg 420  
 ctccccgtct ggtcccagaa ccaccgcagc atcgcgctgg cctacatgac ctgctcggcc 480  
 gtctgggtcc tggttttctt cttgagctcc ccgtcccttg tcttcggga caccgccaac 540  
 attcatggga agataacctg cttcaacaac ttcagcttgg ccgcgcctga gtctctccca 600  
 catcccgccc actcgcaagt agtttccaca gggtacagca gacacgtggc ggtcactgtc 660  
 acccgcttcc tttgcggctt cctgatcccc gtcttcatca tcacggcctg ctaccttacc 720  
 atcgtcttca agctgcagcg caaccgcctg gccaagaaca agaagccctt caagatcatc 780  
 atcaccatca tcatcacctt ctctctctgc tgggtgccctt accacaccct ctacctgctg 840  
 gagctccacc acacagctgt gccaaactct gtcttcagcc tggggctacc cctggccacg 900  
 gccgtcgcca tcgccaacag ctgcatgaac ccattctgt acgtcttcat gggccacgac 960  
 ttcagaaaat tcaaggtggc cctcttctcc cgctggcca acgccctgag tgaggacaca 1020  
 ggcccctcct cctaccccag tcacaggagc ttcaccaaga tgctgtcttt gaatgagaag 1080  
 gcttcggtga atgagaagga gaccagtacc ctctga 1116

<210> 4  
 <211> 371  
 <212> PRT  
 <213> Mus musculus

<400> 4

Met Glu Tyr Asp Ala Tyr Asn Asp Ser Gly Ile Tyr Asp Asp Glu Tyr  
 1 5 10 15

Ser Asp Gly Phe Gly Tyr Phe Val Asp Leu Glu Glu Ala Ser Pro Trp  
 20 25 30

Glu Ala Lys Val Ala Pro Val Phe Leu Val Val Ile Tyr Ser Leu Val  
 35 40 45

Cys Phe Leu Gly Leu Leu Gly Asn Gly Leu Val Ile Val Ile Ala Thr  
 50 55 60

Phe Lys Met Lys Lys Thr Val Asn Thr Val Trp Phe Val Asn Leu Ala  
 65 70 75 80

Val Ala Asp Phe Leu Phe Asn Ile Phe Leu Pro Met His Ile Thr Tyr  
 85 90 95

Ala Ala Met Asp Tyr His Trp Val Phe Gly Lys Ala Met Cys Lys Ile  
 100 105 110

Ser Asn Phe Leu Leu Ser His Asn Met Tyr Thr Ser Val Phe Leu Leu  
 115 120 125

Thr Val Ile Ser Phe Asp Arg Cys Ile Ser Val Leu Leu Pro Val Trp  
 130 135 140

Ser Gln Asn His Arg Ser Ile Arg Leu Ala Tyr Met Thr Cys Ser Ala  
 145 150 155 160

Val Trp Val Leu Ala Phe Phe Leu Ser Ser Pro Ser Leu Val Phe Arg  
 165 170 175

Asp Thr Ala Asn Ile His Gly Lys Ile Thr Cys Phe Asn Asn Phe Ser  
 180 185 190

Leu Ala Ala Pro Glu Ser Ser Pro His Pro Ala His Ser Gln Val Val  
 195 200 205

Ser Thr Gly Tyr Ser Arg His Val Ala Val Thr Val Thr Arg Phe Leu  
 210 215 220

Cys Gly Phe Leu Ile Pro Val Phe Ile Ile Thr Ala Cys Tyr Leu Thr  
 225 230 235 240

Ile Val Phe Lys Leu Gln Arg Asn Arg Leu Ala Lys Asn Lys Lys Pro  
 245 250 255

Phe Lys Ile Ile Ile Thr Ile Ile Ile Thr Phe Phe Leu Cys Trp Cys  
 260 265 270

Pro Tyr His Thr Leu Tyr Leu Leu Glu Leu His His Thr Ala Val Pro  
 275 280 285

Ser Ser Val Phe Ser Leu Gly Leu Pro Leu Ala Thr Ala Val Ala Ile  
 290 295 300

Ala Asn Ser Cys Met Asn Pro Ile Leu Tyr Val Phe Met Gly His Asp  
 305 310 315 320

Phe Arg Lys Phe Lys Val Ala Leu Phe Ser Arg Leu Ala Asn Ala Leu  
 325 330 335

Ser Glu Asp Thr Gly Pro Ser Ser Tyr Pro Ser His Arg Ser Phe Thr  
 340 345 350

Lys Met Ser Ser Leu Asn Glu Lys Ala Ser Val Asn Glu Lys Glu Thr  
 355 360 365

Ser Thr Leu  
 370

<210> 5  
 <211> 1116  
 <212> DNA  
 <213> Rattus norvegicus

<400> 5  
 atggagtacg aggggttaca cgactccagc atctacggtg aggagtattc tgacggctcg 60  
 gactacatcg tggacttgga ggaggcgggt ccaactggagg ccaagggtggc cgagggtcttc 120  
 ctggtggttaa tctacagctt ggtgtgcttc ctcgggatcc taggcaatgg cctggtgatt 180  
 gtcacgcgcca ccttcaagat gaagaagacg gtgaacaccg tgtggtttgt caacctggcc 240  
 gtggctgact tcctgttcaa catcttcttg cccatccaca tcacctatgc cgctatggac 300  
 taccactggg tggtcgggaa agccatgtgc aagattagta gctttctgct aagccacaac 360  
 atgtacacca gcgtcttcct gtcactgtc atcagcttcg accgctgcat ctccgtgctc 420  
 ctccccgtct ggtcccagaa ccaccgcagc gtgcgtctgg cctacatgac ctgcgtgggt 480

gtctgggtct ggctttcttc tgagtctccc ccgtccctcg tcttcggaca cgtcagcacc 540  
 agccacggga agataacctg cttcaacaac ttcagcctgg cggcgccga gcctttctct 600  
 cattccaccc acccggaac agaccggta gggtagagca gacatgtggc ggtcacgctc 660  
 acccgcttcc tctgtggctt cctgatcccc gtcttcatca tcacggcctg ttacctcacc 720  
 atcgtcttca agttgcagcg caaccgccag gccaaagacca agaagccctt caagatcatc 780  
 atcaccatca tcatcacctt ctctctctgc tgggtgccct accacacact ctacctgctg 840  
 gagctccacc acacggctgt gccagcctct gtcttcagcc tgggactgcc cctggccaca 900  
 gccgtcgcca tcgccaacag ctgtatgaac cccatcctgt acgtcttcat gggccacgac 960  
 ttcaaaaaat tcaaggtggc cttttctcc cgctgggtga atgccctgag cgaggacaca 1020  
 ggaccctcct cctaccccag tcacaggagc ttcaccaaga tgtcctcatt gattgagaag 1080  
 gcttcagtga atgagaaaga gaccagcacc ctctga 1116

<210> 6  
 <211> 371  
 <212> PRT  
 <213> Rattus norvegicus

<400> 6

Met Glu Tyr Glu Gly Tyr Asn Asp Ser Ser Ile Tyr Gly Glu Glu Tyr  
 1 5 10 15

Ser Asp Gly Ser Asp Tyr Ile Val Asp Leu Glu Glu Ala Gly Pro Leu  
 20 25 30

Glu Ala Lys Val Ala Glu Val Phe Leu Val Val Ile Tyr Ser Leu Val  
 35 40 45

Cys Phe Leu Gly Ile Leu Gly Asn Gly Leu Val Ile Val Ile Ala Thr  
 50 55 60

Phe Lys Met Lys Lys Thr Val Asn Thr Val Trp Phe Val Asn Leu Ala  
 65 70 75 80

Val Ala Asp Phe Leu Phe Asn Ile Phe Leu Pro Ile His Ile Thr Tyr  
 85 90 95

Ala Ala Met Asp Tyr His Trp Val Phe Gly Lys Ala Met Cys Lys Ile  
 100 105 110

Ser Ser Phe Leu Leu Ser His Asn Met Tyr Thr Ser Val Phe Leu Leu  
115 120 125

Thr Val Ile Ser Phe Asp Arg Cys Ile Ser Val Leu Leu Pro Val Trp  
130 135 140

Ser Gln Asn His Arg Ser Val Arg Leu Ala Tyr Met Thr Cys Val Val  
145 150 155 160

Val Trp Val Trp Leu Ser Ser Glu Ser Pro Pro Ser Leu Val Phe Gly  
165 170 175

His Val Ser Thr Ser His Gly Lys Ile Thr Cys Phe Asn Asn Phe Ser  
180 185 190

Leu Ala Ala Pro Glu Pro Phe Ser His Ser Thr His Pro Arg Thr Asp  
195 200 205

Pro Val Gly Tyr Ser Arg His Val Ala Val Thr Val Thr Arg Phe Leu  
210 215 220

Cys Gly Phe Leu Ile Pro Val Phe Ile Ile Thr Ala Cys Tyr Leu Thr  
225 230 235 240

Ile Val Phe Lys Leu Gln Arg Asn Arg Gln Ala Lys Thr Lys Lys Pro  
245 250 255

Phe Lys Ile Ile Ile Thr Ile Ile Ile Thr Phe Phe Leu Cys Trp Cys  
260 265 270

Pro Tyr His Thr Leu Tyr Leu Leu Glu Leu His His Thr Ala Val Pro  
275 280 285

Ala Ser Val Phe Ser Leu Gly Leu Pro Leu Ala Thr Ala Val Ala Ile  
290 295 300

Ala Asn Ser Cys Met Asn Pro Ile Leu Tyr Val Phe Met Gly His Asp  
305 310 315 320

Phe Lys Lys Phe Lys Val Ala Leu Phe Ser Arg Leu Val Asn Ala Leu  
325 330 335



Ser Glu Asp Thr Gly Pro Ser Ser Tyr Pro Ser His Arg Ser Phe Thr  
 340 345 350

Lys Met Ser Ser Leu Ile Glu Lys Ala Ser Val Asn Glu Lys Glu Thr  
 355 360 365

Ser Thr Leu  
 370

<210> 7  
 <211> 492  
 <212> DNA  
 <213> Homo sapiens

<400> 7  
 atgcgacggc tgctgateccc tctggccctg tggctgggtg cgggtgggcgt gggcgctcgcc 60  
 gagctcacgg aagcccagcg ccggggcctg caggtggccc tggaggaatt tcacaagcac 120  
 ccgcccgtgc agtgggcctt ccaggagacc agtgtggaga gcgccgtgga cagcccttc 180  
 ccagctggaa tatttgtgag gctggaattt aagctgcagc agacaagctg ccggaagagg 240  
 gactggaaga aacccgagtg caaagtcagg cccaatggga ggaaacggaa atgcctggcc 300  
 tgcacaaac tgggctctga ggacaaagtt ctgggcccgt tgggtccactg ccccatagag 360  
 acccaagtgc tgcgggagcg tgaggagcac caggagaccc agtgcctcag ggtgcagcgg 420  
 gctggtgagg acccccacag cttctacttc cctggacagt tcgccttctc caaggccctg 480  
 ccccgagct aa 492

<210> 8  
 <211> 163  
 <212> PRT  
 <213> Homo sapiens

<400> 8

Met Arg Arg Leu Leu Ile Pro Leu Ala Leu Trp Leu Gly Ala Val Gly  
 1 5 10 15

Val Gly Val Ala Glu Leu Thr Glu Ala Gln Arg Arg Gly Leu Gln Val  
 20 25 30

Ala Leu Glu Glu Phe His Lys His Pro Pro Val Gln Trp Ala Phe Gln  
 35 40 45

Glu Thr Ser Val Glu Ser Ala Val Asp Thr Pro Phe Pro Ala Gly Ile  
 50 55 60

Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Ser Cys Arg Lys Arg  
 65 70 75 80

Asp Trp Lys Lys Pro Glu Cys Lys Val Arg Pro Asn Gly Arg Lys Arg  
 85 90 95

Lys Cys Leu Ala Cys Ile Lys Leu Gly Ser Glu Asp Lys Val Leu Gly  
 100 105 110

Arg Leu Val His Cys Pro Ile Glu Thr Gln Val Leu Arg Glu Ala Glu  
 115 120 125

Glu His Gln Glu Thr Gln Cys Leu Arg Val Gln Arg Ala Gly Glu Asp  
 130 135 140

Pro His Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser Lys Ala Leu  
 145 150 155 160

Pro Arg Ser

<210> 9  
 <211> 489  
 <212> DNA  
 <213> Mus musculus

<400> 9  
 atgaagtgct tgctgatctc cctagcccta tggctgggca cagtgggcac acgtgggaca 60  
 gagcccgaac tcagcgagac ccagcgcagg agcctacagg tggctctgga ggagttccac 120  
 aaacaccac ctgtgcagtt ggccttccaa gagatcgggtg tggacagagc tgaagaagtg 180  
 ctcttctcag ctggcacctt tgtgaggttg gaatttaagc tccagcagac caactgcccc 240  
 aagaaggact ggaaaaagcc ggagtgcaca atcaaaccaa acgggagaag gcggaaatgc 300  
 ctggcctgca ttaaaatgga cccaagggt aaaattctag gccgatagt ccaactgccc 360  
 attctgaagc aagggcctca ggatcctcag gagttgcaat gcattaagat agcacaggct 420  
 ggcaagacc cccacggcta cttcctacct ggacagtttg ccttctccag ggccctgaga 480  
 accaaataa 489

<210> 10  
 <211> 162  
 <212> PRT  
 <213> Mus musculus

<400> 10

Met Lys Cys Leu Leu Ile Ser Leu Ala Leu Trp Leu Gly Thr Val Gly  
 1 5 10 15

Thr Arg Gly Thr Glu Pro Glu Leu Ser Glu Thr Gln Arg Arg Ser Leu  
 20 25 30

Gln Val Ala Leu Glu Glu Phe His Lys His Pro Pro Val Gln Leu Ala  
 35 40 45

Phe Gln Glu Ile Gly Val Asp Arg Ala Glu Glu Val Leu Phe Ser Ala  
 50 55 60

Gly Thr Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Asn Cys Pro  
 65 70 75 80

Lys Lys Asp Trp Lys Lys Pro Glu Cys Thr Ile Lys Pro Asn Gly Arg  
 85 90 95

Arg Arg Lys Cys Leu Ala Cys Ile Lys Met Asp Pro Lys Gly Lys Ile  
 100 105 110

Leu Gly Arg Ile Val His Cys Pro Ile Leu Lys Gln Gly Pro Gln Asp  
 115 120 125

Pro Gln Glu Leu Gln Cys Ile Lys Ile Ala Gln Ala Gly Glu Asp Pro  
 130 135 140

His Gly Tyr Phe Leu Pro Gly Gln Phe Ala Phe Ser Arg Ala Leu Arg  
 145 150 155 160

Thr Lys

<210> 11  
 <211> 429  
 <212> DNA  
 <213> Homo sapiens

<400> 11

gagctcacgg aagcccagcg ccggggcctg caggtggccc tggaggaatt tcacaagcac 60  
 ccgcccgtgc agtgggcctt ccaggagacc agtgtggaga gcgccgtgga cagcccttc 120  
 ccagctggaa tatttgtgag gctggaattt aagctgcagc agacaagctg ccggaagagg 180  
 gactggaaga aacccgagtg caaagtcagg cccaatggga ggaaacggaa atgcctggcc 240  
 tgcacaaac tgggctctga ggacaaagtt ctgggcccgt tggtcactg ccccatagag 300  
 acccaagttc tgcgggagggc tgaggagcac caggagaccc agtgcctcag ggtgcagcgg 360  
 gctggtgagg acccccacag cttctacttc cctggacagt tcgccttctc caaggccctg 420  
 ccccgtagc 429

<210> 12  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 12

Glu Leu Thr Glu Ala Gln Arg Arg Gly Leu Gln Val Ala Leu Glu Glu  
 1 5 10 15

Phe His Lys His Pro Pro Val Gln Trp Ala Phe Gln Glu Thr Ser Val  
 20 25 30

Glu Ser Ala Val Asp Thr Pro Phe Pro Ala Gly Ile Phe Val Arg Leu  
 35 40 45

Glu Phe Lys Leu Gln Gln Thr Ser Cys Arg Lys Arg Asp Trp Lys Lys  
 50 55 60

Pro Glu Cys Lys Val Arg Pro Asn Gly Arg Lys Arg Lys Cys Leu Ala  
 65 70 75 80

Cys Ile Lys Leu Gly Ser Glu Asp Lys Val Leu Gly Arg Leu Val His  
 85 90 95

Cys Pro Ile Glu Thr Gln Val Leu Arg Glu Ala Glu Glu His Gln Glu  
 100 105 110

Thr Gln Cys Leu Arg Val Gln Arg Ala Gly Glu Asp Pro His Ser Phe  
 115 120 125

Tyr Phe Pro Gly Gln Phe Ala Phe Ser Lys Ala Leu Pro Arg Ser.

130

135

140

<210> 13  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<400> 13  
 gagctcacgg aagcccagcg ccggggcctg caggtggccc tggaggaatt tcacaagcac 60  
 ccgcccgtgc agtgggcctt ccaggagacc agtgtggaga gcgccgtgga caccgcccttc 120  
 ccagctggaa tatttgtgag gctggaattt aagctgcagc agacaagctg ccggaagagg 180  
 gactggaaga aacccgagtg caaagtcagg cccaatggga ggaaacggaa atgcctggcc 240  
 tgcatacaac tgggctctga ggacaaagtt ctgggcccgt tgggtccactg ccccatagag 300  
 acccaagttc tgcgggaggc tgaggagcac caggagaccc agtgcctcag ggtgcagcgg 360  
 gctggtgagg acccccacag cttctacttc cctggacagt tcgccttctc c 411

<210> 14  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 14

Glu Leu Thr Glu Ala Gln Arg Arg Gly Leu Gln Val Ala Leu Glu Glu  
 1 5 10 15

Phe His Lys His Pro Pro Val Gln Trp Ala Phe Gln Glu Thr Ser Val  
 20 25 30

Glu Ser Ala Val Asp Thr Pro Phe Pro Ala Gly Ile Phe Val Arg Leu  
 35 40 45

Glu Phe Lys Leu Gln Gln Thr Ser Cys Arg Lys Arg Asp Trp Lys Lys  
 50 55 60

Pro Glu Cys Lys Val Arg Pro Asn Gly Arg Lys Arg Lys Cys Leu Ala  
 65 70 75 80

Cys Ile Lys Leu Gly Ser Glu Asp Lys Val Leu Gly Arg Leu Val His  
 85 90 95

Cys Pro Ile Glu Thr Gln Val Leu Arg Glu Ala Glu Glu His Gln Glu  
 100 105 110

Thr Gln Cys Leu Arg Val Gln Arg Ala Gly Glu Asp Pro His Ser Phe  
 115 120 125

Tyr Phe Pro Gly Gln Phe Ala Phe Ser  
 130 135

<210> 15  
 <211> 9  
 <212> PRT  
 <213> Homo sapiens

<400> 15

Lys Leu Gln Gln Thr Ser Cys Arg Lys  
 1 5

<210> 16  
 <211> 10  
 <212> PRT  
 <213> Homo sapiens

<400> 16

Arg Asp Trp Lys Lys Pro Glu Cys Lys Val  
 1 5 10

<210> 17  
 <211> 13  
 <212> PRT  
 <213> Homo sapiens

<400> 17

Arg Gly Leu Gln Val Ala Leu Glu Glu Phe His Lys His  
 1 5 10

<210> 18  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<400> 18

Lys Cys Leu Ala Cys Ile Lys Leu Gly Ser Glu Asp Lys Val  
 1 5 10

<210> 19  
 <211> 14  
 <212> PRT

<213> Homo sapiens

<400> 19

Arg Leu Val His Cys Pro Ile Glu Thr Gln Leu Val Arg Glu  
1 5 10

<210> 20

<211> 14

<212> PRT

<213> Homo sapiens

<400> 20

Arg Arg Gly Leu Gln Val Ala Leu Glu Glu Phe His Lys His  
1 5 10

<210> 21

<211> 14

<212> PRT

<213> Homo sapiens

<400> 21

Arg Glu Ala Glu Glu His Gln Glu Thr Gln Cys Leu Arg Val  
1 5 10

<210> 22

<211> 19

<212> PRT

<213> Homo sapiens

<400> 22

Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe Ala  
1 5 10 15

Phe Ser Lys

<210> 23

<211> 28

<212> DNA

<213> Homo sapiens

<400> 23

caggaattca gcatgcgacg gctgctga

28

<210> 24

<211> 29

<212> DNA

<213> Homo sapiens  
 <400> 24  
 gctctagatt agctgcgggg cagggcctt 29  
 <210> 25  
 <211> 48  
 <212> DNA  
 <213> Mus musculus  
 <400> 25  
 tctctcgaga aaagagagggc tgaagctaca cgtgggacag agccccgaa 48  
 <210> 26  
 <211> 48  
 <212> DNA  
 <213> Homo sapiens  
 <400> 26  
 tctctcgaga aaagagagggc tgaagctggc gtcgccgagc tcacggaa 48  
 <210> 27  
 <211> 48  
 <212> DNA  
 <213> Homo sapiens  
 <400> 27  
 tctctcgaga aaagagagggc tgaagctgtg ggcgtcgccg agctcacg 48  
 <210> 28  
 <211> 30  
 <212> DNA  
 <213> Mus musculus  
 <400> 28  
 agggaattct tatttggttc tcagggcctt 30  
 <210> 29  
 <211> 30  
 <212> DNA  
 <213> Homo sapiens  
 <400> 29  
 agggaattct tagctgcggg gcagggcctt 30  
 <210> 30  
 <211> 28  
 <212> DNA  
 <213> Mus musculus  
 <400> 30



caggaattcg ccatgaagtg cttgctga

28

<210> 31

<211> 28

<212> DNA

<213> Homo sapiens

<400> 31

caggaattca gcatgcgacg gctgctga

28

<210> 32

<211> 29

<212> DNA

<213> Mus musculus

<400> 32

gctctagatt tggttctcag ggccttgga

29

<210> 33

<211> 29

<212> DNA

<213> Homo sapiens

<400> 33

gctctagagc tgcggggcag ggccttgga

29

<210> 34

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<220>

<221> misc\_feature

<222> (1)..(17)

<223> Synthetic primer

<400> 34

gcagacaagc tgccgga

17

<210> 35

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<220>  
<221> misc\_feature  
<222> (1)..(19)  
<223> Synthetic primer

<400> 35  
agtttgatgc aggccaggc

19

<210> 36  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Probe

<220>  
<221> misc\_feature  
<222> (1)..(23)  
<223> Synthetic probe

<400> 36  
aacccgagtg caaagtcagg ccc

23

<210> 37  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic primer

<220>  
<221> misc\_feature  
<222> (1)..(18)  
<223> Synthetic primer

<400> 37  
gtcccagaac caccgcag

18

<210> 38  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic primer

<220>  
<221> misc\_feature  
<222> (1)..(21)

<223> Synthetic primer

<400> 38

aagaaagcca ggacccagat g

21

<210> 39

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic probe

<220>

<221> misc\_feature

<222> (1)..(23)

<223> Synthetic probe

<400> 39

ttcgcctggc ttacatggcc tgc

23

<210> 40

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<220>

<221> misc\_feature

<222> (1)..(19)

<223> Synthetic primer

<400> 40

gaaggtgaag gtcggagtc

19

<210> 41

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<220>

<221> misc\_feature

<222> (1)..(20)

<223> Synthetic primer

<400> 41

gaagatggtg atgggatttc

20

<210> 42  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic primer

<220>  
<221> misc\_feature  
<222> (1)..(20)  
<223> Synthetic primer

<400> 42  
agctctcccg ccggcctctg

20

<210> 43  
<211> 19  
<212> PRT  
<213> Mus musculus

<400> 43

Ala Gln Ala Gly Glu Asp Pro His Gly Tyr Phe Leu Pro Gly Gln Phe  
1 5 10 15

Ala Phe Ser

<210> 44  
<211> 12  
<212> PRT  
<213> Mus musculus

<400> 44

His Gly Tyr Phe Leu Pro Gly Gln Phe Ala Phe Ser  
1 5 10

<210> 45  
<211> 11  
<212> PRT  
<213> Mus musculus

<400> 45

Gly Tyr Phe Leu Pro Gly Gln Phe Ala Phe Ser  
1 5 10

<210> 46  
<211> 10  
<212> PRT  
<213> Mus musculus

<400> 46

Tyr Phe Leu Pro Gly Gln Phe Ala Phe Ser  
1 5 10

<210> 47  
<211> 9  
<212> PRT  
<213> Mus musculus

<400> 47

Phe Leu Pro Gly Gln Phe Ala Phe Ser  
1 5

<210> 48  
<211> 8  
<212> PRT  
<213> Mus musculus

<400> 48

Leu Pro Gly Gln Phe Ala Phe Ser  
1 5

<210> 49  
<211> 26  
<212> PRT  
<213> Mus musculus

<400> 49

Ile Ala Gln Ala Gly Glu Asp Pro His Gly Tyr Phe Leu Pro Gly Gln  
1 5 10 15

Phe Ala Phe Ser Arg Ala Leu Arg Thr Lys  
20 25

<210> 50  
<211> 21  
<212> PRT  
<213> Mus musculus

<400> 50

Ile Ala Gln Ala Gly Glu Asp Pro His Gly Tyr Phe Leu Pro Gly Gln

1                      5                      10                      15

Phe Ala Phe Ser Arg  
20

<210> 51  
<211> 170  
<212> PRT  
<213> Homo sapiens

<400> 51

Met Lys Thr Gln Arg Asp Gly His Ser Leu Gly Arg Trp Ser Leu Val  
1                      5                      10                      15

Leu Leu Leu Leu Gly Leu Val Met Pro Leu Ala Ile Ile Ala Gln Val  
20                      25                      30

Leu Ser Tyr Lys Glu Ala Val Leu Arg Ala Ile Asp Gly Ile Asn Gln  
35                      40                      45

Arg Ser Ser Asp Ala Asn Leu Tyr Arg Leu Leu Asp Leu Asp Pro Arg  
50                      55                      60

Pro Thr Met Asp Gly Asp Pro Asp Thr Pro Lys Pro Val Ser Phe Thr  
65                      70                      75                      80

Val Lys Glu Thr Val Cys Pro Arg Thr Thr Gln Gln Ser Pro Glu Asp  
85                      90                      95

Cys Asp Phe Lys Lys Asp Gly Leu Val Lys Arg Cys Met Gly Thr Val  
100                      105                      110

Thr Leu Asn Gln Ala Arg Gly Ser Phe Asp Ile Ser Cys Asp Lys Asp  
115                      120                      125

Asn Lys Arg Phe Ala Leu Leu Gly Asp Phe Phe Arg Lys Ser Lys Glu  
130                      135                      140

Lys Ile Gly Lys Glu Phe Lys Arg Ile Val Gln Arg Ile Lys Asp Phe  
145                      150                      155                      160

Leu Arg Asn Leu Val Pro Arg Thr Glu Ser  
165                      170

<210> 52  
<211> 25  
<212> PRT  
<213> Homo sapiens

<400> 52

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe  
1 5 10 15

Ala Phe Ser Lys Ala Leu Pro Arg Ser  
20 25

<210> 53  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 53

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe  
1 5 10 15

Ala Phe Ser

<210> 54  
<211> 20  
<212> PRT  
<213> Homo sapiens

<400> 54

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe  
1 5 10 15

Ala Phe Ser Lys  
20

<210> 55  
<211> 18  
<212> PRT  
<213> Homo sapiens

<400> 55

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe  
1 5 10 15

Ala Phe

<210> 56  
<211> 17  
<212> PRT  
<213> Homo sapiens

<400> 56

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe  
1 5 10 15

Ala

<210> 57  
<211> 16  
<212> PRT  
<213> Homo sapiens

<400> 57

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe  
1 5 10 15

<210> 58  
<211> 15  
<212> PRT  
<213> Homo sapiens

<400> 58

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln  
1 5 10 15

<210> 59  
<211> 7  
<212> PRT  
<213> Homo sapiens

<400> 59

Pro Gly Gln Phe Ala Phe Ser  
1 5

<210> 60  
<211> 8  
<212> PRT  
<213> Homo sapiens



<400> 60

Phe Pro Gly Gln Phe Ala Phe Ser  
1 5

<210> 61

<211> 9

<212> PRT

<213> Homo sapiens

<400> 61

Tyr Phe Pro Gly Gln Phe Ala Phe Ser  
1 5

<210> 62

<211> 10

<212> PRT

<213> Homo sapiens

<400> 62

Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser  
1 5 10

<210> 63

<211> 12

<212> PRT

<213> Homo sapiens

<400> 63

His Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser  
1 5 10

<210> 64

<211> 13

<212> PRT

<213> Homo sapiens

<400> 64

Pro His Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser  
1 5 10

<210> 65

<211> 9

<212> PRT

<213> Homo sapiens

<400> 65

Ala Phe Pro Gly Gln Phe Ala Phe Ser  
1 5

<210> 66  
<211> 9  
<212> PRT  
<213> Homo sapiens

<400> 66

Tyr Ala Pro Gly Gln Phe Ala Phe Ser  
1 5

<210> 67  
<211> 9  
<212> PRT  
<213> Homo sapiens

<400> 67

Tyr Phe Ala Gly Gln Phe Ala Phe Ser  
1 5

<210> 68  
<211> 9  
<212> PRT  
<213> Homo sapiens

<400> 68

Tyr Phe Pro Gly Ala Phe Ala Phe Ser  
1 5

<210> 69  
<211> 9  
<212> PRT  
<213> Homo sapiens

<400> 69

Tyr Phe Pro Gly Gln Ala Ala Phe Ser  
1 5

<210> 70  
<211> 9  
<212> PRT  
<213> Homo sapiens

<400> 70

Tyr Phe Pro Gly Gln Phe Ala Ala Ser  
1 5

<210> 71  
 <211> 9  
 <212> PRT  
 <213> Homo sapiens

<400> 71

Tyr Phe Pro Gly Gln Phe Ala Phe Ala  
 1 5

<210> 72  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

<400> 72  
 atgcgacggc tgctgatccc tctggccctg tggctgggtg cgggtgggcgt gggcgctcgcc 60  
 gagctcacgg aagcccagcg ccggggcctg caggtggccc tggaggaatt tcacaagcac 120  
 ccgcccgtgc agtgggcctt ccaggagacc agtgtggaga gcgccgtgga cacgcccttc 180  
 ccagctggaa tatttgtgag gctggaattt aagctgcagc agacaagctg ccggaagagg 240  
 gactggaaga aacccgagtg caaagtcagg cccaatggga ggaaacggaa atgcctggcc 300  
 tgcacaaac tgggctctga ggacaaagtt ctgggccggt tggccactg ccccatagag 360  
 acccaagttc tgccgggaggc tgaggagcac caggagaccc agtgcctcag ggtgcagcgg 420  
 gctggtgagg acccccacag cttctacttc cctggacagt tcgccttctc c 471

<210> 73  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 73

Met Arg Arg Leu Leu Ile Pro Leu Ala Leu Trp Leu Gly Ala Val Gly  
 1 5 10 15

Val Gly Val Ala Glu Leu Thr Glu Ala Gln Arg Arg Gly Leu Gln Val  
 20 25 30

Ala Leu Glu Glu Phe His Lys His Pro Pro Val Gln Trp Ala Phe Gln  
 35 40 45

Glu Thr Ser Val Glu Ser Ala Val Asp Thr Pro Phe Pro Ala Gly Ile  
 50 55 60

Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Ser Cys Arg Lys Arg  
 65 70 75 80

Asp Trp Lys Lys Pro Glu Cys Lys Val Arg Pro Asn Gly Arg Lys Arg  
 85 90 95

Lys Cys Leu Ala Cys Ile Lys Leu Gly Ser Glu Asp Lys Val Leu Gly  
 100 105 110

Arg Leu Val His Cys Pro Ile Glu Thr Gln Val Leu Arg Glu Ala Glu  
 115 120 125

Glu His Gln Glu Thr Gln Cys Leu Arg Val Gln Arg Ala Gly Glu Asp  
 130 135 140

Pro His Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser  
 145 150 155

<210> 74  
 <211> 13  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Src-related peptide kinase substrate

<400> 74

Arg Arg Leu Ile Glu Asp Ala Glu Tyr Ala Ala Arg Gly  
 1 5 10

<210> 75  
 <211> 8  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> CREB binding site

<400> 75  
 tgacgtca

8

<210> 76  
 <211> 160  
 <212> PRT  
 <213> Rattus norvegicus

<400> 76

Met Lys Cys Leu Leu Ile Ser Leu Ala Leu Trp Leu Gly Thr Ala Asp  
1 5 10 15

Ile His Gly Thr Glu Leu Glu Leu Ser Glu Thr Gln Arg Arg Gly Leu  
20 25 30

Gln Val Ala Leu Glu Glu Phe His Arg His Pro Pro Val Gln Trp Ala  
35 40 45

Phe Gln Glu Ile Gly Val Asp Ser Ala Asp Asp Leu Phe Phe Ser Ala  
50 55 60

Gly Thr Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Ser Cys Leu  
65 70 75 80

Lys Lys Asp Trp Lys Lys Pro Glu Cys Thr Ile Lys Pro Asn Gly Arg  
85 90 95

Lys Arg Lys Cys Leu Ala Cys Ile Lys Leu Asp Pro Lys Gly Lys Val  
100 105 110

Leu Gly Arg Met Val His Cys Pro Ile Leu Lys Gln Gly Pro Gln Gln  
115 120 125

Glu Pro Gln Glu Ser Gln Cys Ser Lys Ile Ala Gln Ala Gly Glu Asp  
130 135 140

Ser Arg Ile Tyr Phe Phe Pro Gly Gln Phe Ala Phe Ser Arg Ala Leu  
145 150 155 160

<210> 77

<211> 163

<212> PRT

<213> Sus scrofa

<400> 77

Met Trp Gln Leu Leu Leu Pro Leu Ala Leu Trp Leu Gly Thr Met Gly  
1 5 10 15

Leu Gly Arg Ala Glu Leu Thr Ala Ala Gln Leu Arg Gly Leu Gln Val  
20 25 30

Ala Leu Glu Glu Phe His Lys His Pro Pro Val Gln Trp Ala Phe Arg  
 35 40 45

Glu Thr Gly Val Asn Ser Ala Met Asp Thr Pro Phe Pro Ala Gly Thr  
 50 55 60

Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Ser Cys Arg Lys Arg  
 65 70 75 80

Asp Trp Lys Lys Ala Glu Cys Lys Val Lys Pro Asn Gly Arg Lys Arg  
 85 90 95

Lys Cys Leu Ala Cys Ile Lys Leu Asn Ser Glu Asp Lys Val Leu Gly  
 100 105 110

Arg Met Val His Cys Pro Ile Glu Thr Gln Val Gln Arg Glu Pro Glu  
 115 120 125

Glu Arg Gln Glu Ala Gln Cys Ser Arg Val Glu Arg Ala Gly Glu Asp  
 130 135 140

Pro His Ser Tyr Tyr Phe Pro Gly Gln Phe Ala Phe Phe Lys Ala Leu  
 145 150 155 160

Pro Pro Ser

<210> 78  
 <211> 160  
 <212> PRT  
 <213> Bos taurus

<400> 78

Met Trp Gln Leu Leu Leu Pro Leu Ala Leu Gly Leu Gly Thr Met Gly  
 1 5 10 15

Leu Gly Arg Ala Glu Leu Thr Thr Ala Gln His Arg Gly Leu Gln Val  
 20 25 30

Ala Leu Glu Glu Phe His Lys His Pro Pro Val Leu Trp Ala Phe Gln  
 35 40 45

Val Thr Ser Val Asp Asn Ala Ala Asp Thr Leu Phe Pro Ala Gly Gln  
 50 55 60

Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Ser Cys Arg Lys Lys  
65 70 75 80

Asp Trp Arg Lys Glu Asp Cys Lys Val Lys Pro Asn Gly Arg Lys Arg  
85 90 95

Lys Cys Leu Ala Cys Ile Lys Leu Asp Ser Lys Asp Gln Val Leu Gly  
100 105 110

Arg Met Val His Cys Pro Ile Gln Thr Gln Val Gln Arg Glu Leu Asp  
115 120 125

Asp Ala Gln Asp Ala Gln Cys Ser Arg Val Glu Arg Ala Gly Glu Asp  
130 135 140

Pro His Ser Tyr Tyr Leu Pro Gly Gln Phe Ala Phe Ile Lys Ala Leu  
145 150 155 160

<210> 79  
<211> 165  
<212> PRT  
<213> Gallus gallus

<400> 79

Arg Ala Val Gly Met Lys Leu Leu Leu Gly Ile Ala Val Val Val Leu  
1 5 10 15

Ala Leu Ala Asp Ala Gly Gln Ser Pro Leu Gln Arg Arg Val Val Lys  
20 25 30

Asp Val Leu Asp Tyr Phe His Ser Arg Ser Asn Val Gln Phe Leu Phe  
35 40 45

Arg Glu Gln Ser Val Glu Gly Ala Val Glu Arg Val Asp Ser Ser Gly  
50 55 60

Thr Phe Val Gln Leu His Leu Asn Leu Ala Gln Thr Ala Cys Arg Lys  
65 70 75 80

Gln Ala Gln Arg Lys Gln Asn Cys Arg Ile Met Glu Asn Arg Arg Lys  
85 90 95

Pro Val Cys Leu Ala Cys Tyr Lys Phe Asp Ser Ser Asp Val Pro Lys  
 100 105 110

Val Leu Asp Lys Tyr Tyr Asn Cys Gly Pro Ser His His Leu Ala Met  
 115 120 125

Lys Asp Ile Lys His Arg Asp Glu Ala Glu Cys Arg Ala Val Glu Glu  
 130 135 140

Ala Gly Lys Thr Ser Asp Val Leu Tyr Leu Pro Gly Met Phe Ala Phe  
 145 150 155 160

Ser Lys Gly Leu Pro  
 165

<210> 80  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Substrate peptide for Protein Kinase C

<220>  
 <221> PEPTIDE  
 <222> (1)..(7)  
 <223> Substrate peptide

<400> 80

Phe Lys Lys Ser Phe Lys Leu  
 1 5

<210> 81  
 <211> 11  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Consensus NF-kappa B binding site

<220>  
 <221> misc\_binding  
 <222> (1)..(11)  
 <223> Consensus binding element sequence

<400> 81  
 ggggactttc c

11



<210> 82  
<211> 6  
<212> PRT  
<213> Homo sapiens

<400> 82

Lys Ala Leu Pro Arg Ser  
1 5

<210> 83  
<211> 17  
<212> PRT  
<213> Homo sapiens

<400> 83

Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe  
1 5 10 15

Ser

<210> 84  
<211> 15  
<212> PRT  
<213> Homo sapiens

<400> 84

Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser  
1 5 10 15

<210> 85  
<211> 11  
<212> PRT  
<213> Homo sapiens

<400> 85

Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser  
1 5 10

<210> 86  
<211> 6  
<212> PRT  
<213> Homo sapiens

<400> 86

Gly Gln Phe Ala Phe Ser

1 5

<210> 87  
<211> 5  
<212> PRT  
<213> Homo sapiens

<400> 87

Gln Phe Ala Phe Ser  
1 5

<210> 88  
<211> 9  
<212> PRT  
<213> Homo sapiens

<400> 88

Tyr Phe Pro Ala Gln Phe Ala Phe Ser  
1 5

<210> 89  
<211> 8  
<212> PRT  
<213> Homo sapiens

<400> 89

Phe Ser Lys Ala Leu Pro Arg Ser  
1 5

<210> 90  
<211> 7  
<212> PRT  
<213> Homo sapiens

<400> 90

Glu Leu Thr Glu Ala Gln Arg  
1 5

<210> 91  
<211> 13  
<212> PRT  
<213> Homo sapiens

<400> 91

Tyr His Ser Phe Phe Phe Pro Gly Gln Phe Ala Phe Ser  
1 5 10